

RI DEM OFFICE OF EMERGENCY RESPONSE
Annual Report for 2004

INTRODUCTION

Staff of the Office of Emergency Response provide initial on-site response and support to State and municipal fire and emergency teams handling petroleum and hazardous materials/waste releases or spills. At incidents, the emergency responder provides advice and oversight for clean-ups to ensure that the environment is protected and remediation work is completed to remove hazardous contaminants and pollutants. In some instances, the emergency responders will remove waste from sites for disposal and conduct small cleanups. Examples of this may include removal of small amounts of spilled mercury, removal of small containers, or clean up of small oil spills. In the event of larger scale spills and releases, emergency responders will call in contract environmental clean-up companies to handle removal and remediation of spilled or released petroleum products and hazardous wastes that threaten the environment and the public's health and safety. Reports are completed and cost recovery for clean-up work is tracked and sought.

This year, the emergency response program responded to 669 incidents that threatened the environment due to pollutants and hazardous materials. Response was necessary to contain pollutants and hazardous materials from spreading further into the environment and to monitor clean up. Staff of this program also responded to incidents concerning possible weapons of mass destruction (WMD). These responses include investigating incidents where such items as anthrax, ricin, nerve agents, blister agents, radioactive material and other biological/chemical materials are alleged to be involved. The equivalent of four full-time staff (4 FTEs), including a full-time supervisor, are available to carry out this work.

ACCOMPLISHMENTS / PERFORMANCE

The Emergency Response program had the following materials that posed a threat to health or Rhode Island's environment removed and safely disposed. Quantities have been approximated by volume (gallons) or by weight (pounds or tons).

Petroleum	40,565 gallons
Oil-contaminated Debris	3,444 tons
Oil/Water	71,756 gallons
Hazardous Waste	307 tons
Mercury	36 pounds
Propane	2,100 pounds
Cost Recovery (collected)	\$53,781

EXAMPLES OF ACCOMPLISHMENTS FROM THE HUNDREDS OF RESPONSES OF THE EMERGENCY RESPONSE PROGRAM IN 2004

Natick Auto Body and Repair, River Road, West Warwick, RI

On January 14, 2004, personnel from this office were contacted regarding a fire at Natick Auto Body and Repair, which is located on the Pawtuxet River in West Warwick. The fire destroyed three businesses at that location. The auto body shop contained several gallons of paints and thinners.. There were also containers of oil, parts cleaner fluid, a drum of motor oil, a waste oil tank and an acetylene tank. Located outside the building were also four 275-gallon tanks. Three of the tanks contained waste oil that had to be removed, and one of the tanks contained heating oil. The responsible parties (RP) removed the chemicals that were considered product for their intended use. They then properly disposed of all the materials that were considered waste. The removal of the chemical eliminated any possible discharge into the Pawtuxet River.

Induplate, 1 Greystone Drive, North Providence, RI

On January 11, 2004, personnel from this office responded to a chemical release at Induplate in North Providence. Water sprayed from a broken sprinkler system was mixed with chromic acid. The water that was trapped on the second floor had a pH of 2. The water that overflowed the second floor down to the first had a pH of 6-7. The water that made it to the basement had a pH of 7. The Woonasquatucket River flows beneath the mill, but the inspectors could not find any discharge to the river. The company's trained personnel were called in to cleanup the spillage and to pump the liquid into holding tanks. The wastewater was then put through Induplate's treatment plant to adjust the pH and remove any heavy metal contamination. The DEM inspector then forwarded a complaint to the DEM RCRA (Resource Conservation and Recovery Act) Section to initiate an inspection of the company's operation. The cleanup and proper treatment of the waste prevented any further release to the Woonasquatucket River.

Slater Dye, 725 School Street, Pawtucket, RI

On December 31, 2003, personnel from this office responded to Slater Dye for a chemical reaction involving sodium hydroxide and hydrogen peroxide. A truck from Univar was delivering a solution of 50% sodium hydroxide to the plant. Unfortunately, 900 gallons of sodium hydroxide were unloaded into the hydrogen peroxide tank. The 6000-gallon tank contained about 5000 gallons of hydrogen peroxide at the time. The resulting mixture created an exothermic reaction, which caused the material in the tank to boil violently. The material was forcibly ejected through the manway vent on the top of the tank. The material was blown into the air where the winds blew the vapor cloud about a half a mile in a southeasterly direction. The most heavily impacted area was the roof of Slater Dye, which began to smoke from strong oxides coming in contact with the tar roof. The Fire department soaked the roof to keep it from igniting. The caustic, contaminated runoff generated by keeping the roof from catching fire migrated to a drain that discharges into the Blackstone River. Approximately 100 minnows swimming in the discharge stream, which flows into the river, were killed. The pH of the River was checked and remained about 7 (neutral) but the pH of the stream into the river was elevated to about 11. Slater Dye called in a contractor to clean the streets and some of the buildings. Approximately, 4 cubic yards of sand were used to clean the streets and about 6,000 gallons of contaminated

water had to be disposed of properly. Approximately 4,400 gallons of material was left in the tank to be removed after the reaction in the AST subsided. On January 5, 2004, the tank was cleaned and several thousand gallons of waste were generated.

Lady Helen, Point Judith, Narragansett, RI

On February 22, 2004, personnel from this office responded to Jerusalem Beach, where the fishing vessel Lady Helen had sunk. The vessel lay in about twenty feet of water approximately three-fifths of the way out between the west gap and Jerusalem Beach. The vessel was approximately 100 feet from the west wall at the Harbor of Refuge, Point Judith, RI. The vessel was inbound for the Port of Galilee when it sank. Although when full it can carry 3,000 gallons of diesel, it only contained about 1,000 gallons at the time. On that morning the wind was blowing about 30 knots out of the west and was blowing the oil sheen through the Harbor of Refuge, out towards the east passage. The material was only a sheen that could not be recovered with absorbent boom. An inspection of the vessel and of the Harbor of Refuge showed that the sheen traveled east about a half mile and then dispersed. During the beach assessments there was no evidence that the shoreline was impacted. Salvage was begun to remove the six 500 gallon diesel tanks and then the vessel. The tanks were removed and Clean Harbors captured about 100 gallons of diesel that spilled from the tanks within their containment area. Once that was complete, the crane barge picked up the remaining pieces of the vessel for disposal.

Little Rhodney Chicken Farm, 69 Cucumber Hill Road, Foster RI

On February 20, 2004, DEM emergency responders provided support to develop the Health and Safety Plan (HASP) for the Low Pathogenic Avian Influenza Control Plan for Little Rhodney Chicken Farm. The HASP was in operation from 2-23-04 to 2-27-04. The duties of DEM emergency responders included providing a health and safety officer and monitoring the air where workers were conducting euthanasia operations. Air monitoring was conducted in the morning and afternoon to verify that the workers had safe working conditions. All workers were provided advice concerning HASP at the Monday morning meeting before the work began. The operation was completed without any problems and by Friday all work was completed. Approximately 30,000 chickens were euthanized with carbon dioxide and transported to the Rhode Island Resource Recovery Corporation (RIRRC) for disposal. The DEM Agriculture section thereafter oversaw the cleaning and disinfecting of the chicken coupe and repopulation of the operation.

Univar, 175 Terminal Road, Port of Providence, Providence, RI

On February 27, 2004, personnel from this office responded to Univar for a chlorine gas release. During the purging of chlorine lines from a railcar into the plant a release of chlorine gas occurred. The lines were being purged to allow the company to change the railcar over to a new one. The company immediately evacuated the building and called the fire department to respond. The fire department immediately set up a full HAZMAT response which included a decontamination operation. The fire department then called DEM to provide support. DEM provided chlorine tubes, and the HAZMAT team entered the building in level-A personal protective equipment. They verified that there was no longer any chlorine gas in the building and the incident was terminated.

Dursin and Sons, 140 Hamlet Avenue, Woonsocket, RI

On March 5, 2004, personnel from this office responded to Dursin and Sons Dyeing Company located in an old Mill at 140 Hamlet Avenue. The former company abandoned an assortment of chemicals and dyes. Steve Preston (the Woonsocket Fire Department HAZMAT Officer) contacted DEM for assistance. The city had taken over the property by foreclosure. As a result, the city became responsible for the proper removal and disposal of the abandoned chemicals. The material included a large quantity of dyes, which the city arranged to transfer to a North Carolina company as product for use in its operation. The city also had acids, bases, and other hazardous chemicals such as sodium bichromate and formic acid. These materials were evaluated for reuse, and the waste disposed of properly.

Phillips Components, 100 Providence Pike, North Smithfield, RI

On March 15, 2004, personnel from this office responded to the Branch River to identify the source of red liquid flowing into the river. The red liquid was tracked upstream and then into a culvert. Manhole covers were removed and the red liquid was tracked up to National Marker at 100 Providence Pike. The company contact indicated that Phillips Components owns the site, and they also hired a clean-up contractor to remediate the site. Phillips started injecting sodium permanganate, an oxidizer, into the ground that morning in an attempt to cleanup historical trichloroethylene release. Drums of sodium permanganate were located on-site. Material safety data sheets (MSDS) indicated that the material should not be allowed to discharge into surface waters. DEM hired a response contractor to vacuum the material from the furthest-down gradient catch basin. Phillips Components was contacted, and they indicated that they would take over the project and pay the bill from DEM's response contractor. Water samples from the drainage system and the Branch River were obtained for analysis. It was determined that a drainage pipe connected to the storm drain system ran directly through the remediation field. It appears that sodium permanganate entered a hole in the pipe and then ultimately discharged into the Branch River.

Resident at 1344 Main Street, West Warwick, RI

On March 18, 2004, personnel from this office responded to a residential home in West Warwick. The West Warwick HAZMAT Team contacted DEM regarding an assortment of chemicals in the basement of the residence. It was discovered that New England Blood Laboratory had rented the property prior to its being sold about four years ago. The basement had not been checked before it flooded on that day. The owner discovered chemicals that included: ammonium hydroxide, sodium hydroxide, methanol, toluene, acids and formaldehyde. DEM engaged a contractor to remove the hazardous chemicals and contaminated glassware. The removed material was to be disposed of properly and any usable product recycled for its intended purpose.

Wal-Mart Superstore, 258 Post Road, Westerly, RI

On April 16, 2004, personnel from this office received a call from the Westerly Fire Chief requesting assistance concerning a battery explosion. A battery was being returned to Wal-Mart in a metal basket when the metal grounded out the battery, causing it to explode. The released acid from the battery contaminated the area and sprayed an individual. An employee put kitty litter down on the

release, which generated a foul smell. The fire department responded and decontaminated the person. DEM advised the fire department to apply baking soda and water. They were instructed to pour the mixture on the acid to neutralize it. The resulting mixture was neutralized, becoming a non-hazardous salt. They then put the material in the dumpster for disposal.

Pawcatuck River, Off Wellston Street, Hopkinton, RI

On April 14, 2004, personnel from this office responded to the Pawcatuck River concerning two propane tanks floating in the river. One of the tanks was a 500 gallon tank, and the other was 1,000 gallon tank. The decision was made to remove the two tanks from the water, before they floated down stream into a nearby bridge, by pulling them ashore with lines tied to a backhoe. The tanks were attached in a fashion so that they would slide up the bank on their sides. This would insure that no valve on the top or bottom of the tank would be damaged. The 500-gallon tank was empty, and the 1,000-gallon tank was approximately three-quarters full. The operation went very quickly, and once the tank was out of the water, it was righted. Star Gas then put slings around the tank and put it onto their flat bed with a backhoe. DEM contacted the State Police for permission to transport the tank back to Star Gas in Quonset Point. When permission was granted, the tank was safely delivered back to Star Gas.

Two Jay's Painting East, Storage Unit A-1, Hartford Ave, Johnston, RI

On April 9, 2004, personnel from this office and the Office of Criminal Investigation responded to Storage USA to investigate the illegal abandonment of hazardous waste. Two Jay's Painting abandoned over two hundred gallons of waste paints at the storage facility they were renting. They stopped paying their bill and were contacted to remove their materials. Storage USA notified DEM for assistance when the company would not remove their materials. The DEM obtained approximately 40 samples from different containers for submission to a State contract laboratory for a complete hazardous-waste analysis. The analysis showed that about 80 gallons of material were hazardous waste. The remainder of the waste 194 gallons was determined to be non-hazardous but still required proper disposal.

Hope Valley Industries, Mechanic Street, Hopkinton, RI

On December 9, 2003, DEM received a call from the Building Official for the Town of Hopkinton indicating that Hope Valley Industries had gone into receivership and that the town was concerned that there could be hazardous waste left inside several on-site trailers and inside the building. A DEM inspector contacted the receiver to explain that they must remove and properly dispose of all hazardous waste left on-site. A contractor was hired to analyze the chemicals for proper disposal, but when they went to conduct the testing, the containers were determined to be frozen. The trailers and building was locked, and the project was put on hold until the containers thawed so the material could be analyzed. In April, samples were obtained and work begun at the site. Over a three-week period, the contractor properly disposed of approximately 192,264 pounds of an assortment of waste chemicals (over 500 drums of chemicals). The company that was the new occupant took any product that they could utilize in their process. On May 5, 2004, DEM received the manifest for the proper disposal of all waste chemicals.

Narragansett Bay Commission Treatment Plant, East Providence, RI

On May 13, 2004, personnel from this office received a call from the East Providence Fire Chief requesting assistance concerning a 15% sodium hypochlorite release. Employees were working inside the secondary containment area, which contained three 8,000 gallon hypochlorite tanks. The workers were installing new vent pipes on the tanks. One worker apparently inadvertently stepped on the piping and cracked the fitting that connected to tank #1. The sodium hypochlorite sprayed from the cracked fitting onto the workers. They were washed on-site and transported to the hospital. When DEM arrived, the Providence HazMat Team was on-site. DEM indicated that the HazMat Team could be released. Trained personnel from the Narragansett Bay Commission (NBC) were allowed to wash the secondary containment area down and to drain the material into another containment area. This diluted material was then pumped into the primary clarifier. This was all done without incident. OSHA was notified of the situation. The workers were decontaminated and released that same day. NBC provided DEM a spill report, completing the release response.

Continental Airline, 2000 Post Road, Warwick, RI

On May 22, 2004, personnel from this office responded to Rhode Island Airport Corporation (RIAC) concerning containers of flammable materials, which the Federal Aviation Authority (FAA) confiscated from a passenger boarding a Continental Airline plane. The material was turned over to Continental staff at the terminal. The material was being stored at the terminal, when one of the containers broke open, and the odor was apparently making people sick. The fire department was alerted but would not take the material. The fire department then contacted DEM for assistance. DEM removed the material and had it disposed of properly.

Kent County Hospital, 455 Tollgate Road, Warwick, RI

On May 24, 2004, personnel from this office responded to Kent County Hospital for a 500-gallon release of #6 oil. The oil company was supposed to fill one of the three tanks; however, a connection between the tank to be filled and a full tank was left open. Oil started to spill out of the vent pipe on the full tank and into the storm drain. The drain discharges into a nearby brook. The company hired a clean-up contractor, who removed nine tons of oil contaminated material and 3,635 gallons of oil/water from the brook. Absorbent boom and a vacuum truck were utilized to contain and remove the oil. Oil-contaminated vegetation was cut and removed.

Ocean State Steel, 300 Bourne Avenue, East Providence, RI

On June 2, 2003, DEM responded to the former location of Ocean State Steel. The site is being developed as a condominium complex. While removing contaminated soil an excavator struck an acetylene cylinder, which exploded and spread metal shrapnel all over the area. No one was hurt, but operations in that area were suspended. The cylinders contained acetylene in acetone with an asbestos liner. A clean-up contractor was hired to remove other exposed cylinders and the exploded pieces, generating two drums of waste. DEM required the contractor to develop a work plan before any more cylinders were removed. No further problems were encountered.

Providence Chain Company, 235 Carolina Street, Providence, RI

On June 24, 2004, personnel from this office responded to Providence Chain for a red phosphorous fire in their tumbling machines. The mixture contained 20% red phosphorous, 50% copper, 20% tin and 10% borax. The material ignited because of an electrical fire within the machine. When burning, the red phosphorous turns to white phosphorous and emits phosphorous pentoxide, a toxic fume. The company contacted the fire department and evacuated the building. Fire fighters put water on the fire, but once the water drained, the white phosphorous would contact the air and re-ignite. They then covered the phosphorous with wet sand. The company called in their contractor to drum up the phosphorous and to vacuum the liquid on the floor. The liquid had a pH of about 4 and had to be properly disposed of by the contractor.

Household Hazardous Waste Day, South Kingstown Public Works, RI

On June 26, 2004, a two-pound container of picric acid was dropped off at the Hazardous Waste Day sponsored by the Rhode Island Resource Recovery Corporation (RIRRC). The material came from the South Kingstown school system and was considered explosive. The HazMat Team was called in to assess the material. The bomb squad was then notified and removed the material for proper storage until it could be detonated. On June 30th personnel from the DEM and the State Fire Marshal's office transported the material to the United States Navy Explosive Ordinance Detonation team for disposal.

Weaver Cove Vessel Decommissioning, Little Harbor Road, Portsmouth, RI

In June 2004, Hood Mariner hired a contractor to decommission the Tug Electra, the Yukalpeten and the landing ship tank (LST 1148). The vessels were docked there to provide a wind breaker and wave protection for the mariner. The 320-foot LST, which was World War II vintage, had been there since 1989. The Tug Electra (90 feet) and the Yukalpeten (220 feet) had been at the mariner since 1995. The LST was discovered to have a compartment filled with PCB oil. As a result, all the oil was removed and disposed of properly along with 49 tons of PCB contaminated metal. The vessels were then dismantled and sent off as scrap metal.

Crystal Motor Express at Central Paper, 400 Glenwood Ave., Pawtucket, RI

On July 23, 2004, DEM responded to Central Paper in Pawtucket for a hydrofluoric acid release from a 55-gallon drum that occurred in a tractor-trailer truck while en-route. Central Paper personnel discovered the release when they opened the door of the tractor-trailer and noticed that the drum had fallen over and developed a leak. They then ordered the driver to leave the property. The driver had nowhere to go and left to park the truck on Glenwood Avenue, a residential neighborhood, to contact his office. He then drove back to Crystal Motor Express in Wilmington, Massachusetts, where the trailer continued to leak. Crystal Motor Express hired a contractor to neutralize and cleanup the release at Central Paper, Glenwood Avenue, and the tractor-trailer in Massachusetts. The two companies were cited for allowing the tractor-trailer to leave the property before the release had been properly remediated. Hydrofluoric acid is a very dangerous chemical and upon contact with humans it penetrates through the skin and removes calcium from bones. The spill has been mitigated, and no further action is required.

RIPTA Bus, Gateway Center, America's Cup Ave, Newport, RI

On July 23, 2004, personnel from this office responded to the Gateway Center for a white powder found on a RIPTA (Rhode Island Public Transit Authority) Bus. The driver noticed the white powder when he arrived in Newport, before he had picked up any passengers. The DEM responder donned protective clothing and entered the bus. The powder was a white crystalline material. There was no threat indicating that it was Anthrax. The material was collected and placed in a sample jar. The powder was then sampled on the RIDEM's Sensir IR. The material most closely matched a monostearate lactose powder such as Creamora. RIPTA then hired a contractor to screen the material for Ricin and Anthrax with their field sampling wipes. Those were negative and no further action was required for the site.

Conimicut Point, Stokes Street, Warwick, RI

During the month of July 2004, RIDEM Emergency Response personnel responded to the Conimicut Point area to address the algae (Ulva) that had been washing up on the beach and causing hydrogen sulfide odors. The emergency response section had personnel out at the site almost daily. The DEM worked with the City of Warwick to use rakes and heavy equipment to remove the material from the beaches. The DEM utilized the DEM swamp walker and the city used a front-end loader, a tractor with a york rake and a 10-wheel dump body. A labor team from the Adult Correctional Institutions (ACI) were also utilized to remove seaweed from the beaches. Over 60 tons of seaweed were disposed of at the RIRRC. The air in the vicinity was monitored with a PHD Lite and a hydrogen sulfide meter (two hand-held instruments) on a weekly basis. A hydrogen sulfide air monitoring station was installed in the area in July to provide daily readings.

146 Pavilion Street, Providence, RI

On August 24, 2004, DEM responded to 146 Pavilion Street in south Providence concerning twenty drums of hazardous waste buried on the property. The vacant lot was the former location of a hazardous waste disposal company, well-known for improperly disposing of drums of hazardous waste in the 1970s. There was suspicion that drums were buried on this particular property, but test pitting completed at that time did not uncover any drums. The property was recently sold to Mr. Almeida for a house lot. The contractor was installing a foundation when the drums were discovered. Approximately, 20 drums were removed along with several tons of contaminated soil.

Chemical Safe Schools, Warwick, Pilgrim, Johnston, Coventry, South Kingstown, Ponaganset, Portsmouth High Schools, RI

During the months of July and August 2004, DEM responded to the aforementioned schools to inventory and classify chemicals for proper disposal. The listed schools had applied to the RI Department of Health (HEALTH) for funds to cover the cost of removing their waste and/or banned chemicals. The schools had to meet the requirements set forth by the Chemical Safe School Committee before funds, already allocated by the HEALTH, would be released. Since funding would be insufficient to remove all the chemicals from the schools, DEM removed chemicals that could be reused or disposed of as non-hazardous waste. Approximately 228 pounds of solid chemicals and 137 gallons of liquid

chemicals were removed from the schools. DEM sorted the remaining hazardous waste chemicals into disposal groups.

ACI, Howard Complex, Cranston, RI

On August 12 and 17, 2004, DEM personnel responded to the ACI headquarters to assist the Cranston Haz/Mat Team with two envelopes containing white powder. Employees who were in the area of the envelope and who felt ill were transported to the hospital. The building was evacuated. The Haz/Mat Team ran field tests for radiation, anthrax and ricin. Based on the threat assessment and the field-testing, it was decided to analyze the material on the DEM Sensor IR. The results for both of the incidents most closely matched Gold Bond Powder and Corn Starch. The Haz/Mat Teams transported the material to the Department of Health Laboratory, and both were determined not to be anthrax.

Boiler House at the Ladd School, Quonset Drive, Exeter, RI

On August 8, 2004, RIDEM Emergency Response personnel responded to the boiler house at the Ladd School for an elemental mercury release. The spill was associated with old gages located in the basement of the building. The spill was on a concrete floor mixed in with asbestos debris. The spill occurred some time ago but was only recently reported. The boiler house has been inactive for several years and was sealed off from the outside because of asbestos hazards. The Department of Administration hired a contractor to remediate the release and conduct air sampling inside the building.

12 Wakefield Street, West Warwick, RI

On September 8, 2004, DEM responded to 12 Wakefield Street in West Warwick concerning the improper storage of waste oil. The renter had improperly stored three 55-gallon drums of waste inside the garage since 1986. One of the drums leaked oil onto the floor where it flowed under the partition into the adjoining storage units. The oil contaminated the contents in the storage units. A contractor was hired to properly dispose of all the contaminated debris. As part of the project, three 20-pound propane cylinders, 15 car batteries, several cans of flammable paint, and a 275-gallon above-ground storage tank (AST) with about 50 gallons of heating oil were removed for proper disposal. The street storm drain system in front of the garage discharges into the Pawtuxet River. The removal of all the hazardous waste eliminated the possible discharge into the river.

Bay Truck Sales, 340 Jefferson Blvd., Warwick, RI

On September 15, 2004, DEM was contacted concerning a blue liquid leaking from the back of a tractor-trailer that had been abandoned at 340 Jefferson Boulevard. Bay Truck Sales contacted a clean-up contractor to conduct a removal action. The trailer contained one salvage drum, three 55-gallon metal drums, and two 55-gallon poly drums, one of which was leaking. The drums were removed from the trailer and a contractor conducted the cleanup. On September 20, 2004, DEM response personnel and criminal investigators went back to the site to investigate a second trailer. Samples were obtained from the trailer, which contained 50 drums and containers of hazardous waste. The DEM Office of Criminal Investigation has been developing a criminal case in regards to this situation.

URI Graduate School for Research Studies, Quinn, South Kingstown, RI

On September 3, 2004, DEM personnel responded to URI for a white powder that leaked out of an envelope. Three people were exposed to the powder. DEM personnel entered the office where the suspected envelope had been left. When they entered the room, the three URI employees exposed to the white powder were still in the room. After answering some questions, they were allowed to leave the building and go through the fire department's decontamination line. The DEM photo documented the area and then placed the letter into a sealed glove bag. The letter was opened inside the glove bag, and the powder was poured into a zip-lock bag. The letter inside was not threatening. It was decided to send the powder off to the Department of Health to have it analyzed so Quinn Hall could be reopened to as soon as possible. The analysis indicated that the white powder was not anthrax. No further action was required.

362 Tomaqua Road, Charlestown, RI

On October 2, 2004, DEM responded to 362 Tomaqua Street in Charlestown concerning the abandonment of bomb making materials. The Charlestown Police notified the bomb squad and the DEM that they discovered several garbage bags containing chemicals and explosives. The bags contained sodium nitrite, sodium hydroxide, octyl phenol, glycerin, sulfur, and lead nitrate. The bomb squad took the explosives, and DEM arranged for proper disposal of the hazardous chemicals.

Custom Corrugated Box, 25 Almeida Way, East Providence, RI

On October 28, 2004, at the request of the State Marshals Office and the East Providence Fire Department, DEM responded to 25 Almeida Way in East Providence. There were thirteen 55-gallon drums and two 30-gallon drums located behind the building. The contents of these drums consisted of the following materials: three drums of dried resin and water, one drum of waste trichloroethylene, four drums of waste oil, two drums of rain water, three empty drums, and two empty 30-gallon containers. Subsequent to the inspection, DEM met with and instructed the president of the company that these materials had to be properly disposed of the following day. On the very next day, the drums and a five-gallon container of mercury-containing fluorescent lights were removed for disposal in accordance with DEM regulations.

Providence Water Supply Board, Route 116, Scituate, RI

On October 3, 2004, DEM personnel responded to the settling ponds located west of the Providence Water Supply Board (PWSB) Office. The lock system for the dam failed and allowed about 35 million gallons of water and ferric sulfate to flow into the wetlands below and out to the Pawtuxet River. The river turned a brownish color as a result of the release of the ferric sulfate. The PWSB hired a contractor to remove the ferric sulfate that settled in the wetland. Over 400 cubic yards of ferric sulfate were removed from the wetland.

New England Gas, Tidewater Street, Pawtucket, RI

On October 19, 2004, an employee of the New England Gas Company (NEGC) left a message on a DEM answering machine that indicated that there was a release of mercury at their Tidewater location. The following day a DEM emergency responder assessed the situation. Four individuals between the ages of 16 and 19 had apparently broken into an NEGC buildings and discovered

containers of mercury. Mercury was spilled inside the building at Tidewater and, as was discovered on October 23, 2004, also spilled mercury at the Lawn Terrace Apartment Complex. NEGC hired a contractor to remediate the Tidewater Street building and the surrounding contaminated ground. An inspection of the entire facility by DEM did not turn up any more mercury. The residents at the Lawn Terrace Apartments were evacuated as a result of elevated mercury vapor levels inside the complex. NEGC assumed all costs to have the residents relocated at the Comfort Inn. A contractor was hired to remediate the inside of the apartment complex and surrounding site. The contaminated parking lot and grounds around the apartments were removed for proper disposal. It would take several more weeks to complete the cleanup of the Lawn Terrace complex and cross-contaminated properties in Providence and Pawtucket.

Pepsi Cola, 1400 Pontiac Avenue, Cranston, RI

On November 5, 2004, DEM personnel responded to Pepsi Cola for a calcium hypochlorite reaction inside a dumpster located in a garage attached to the building. Apparently as a result of a miscommunication, a Pepsi Cola worker threw 100 pounds of calcium hypochlorite into the dumpster. When the trash compactor was activated, it crushed the poly plastic containers, and the calcium hypochlorite reacted with the moisture in the dumpster to produce chlorine gas. The building was evacuated. The fire department responded, activated their Haz/Mat Team, and contacted DEM for assistance. Waste Management, located down the street, was contacted to supply a roll-off truck to remove the trash compactor from inside the building. A Haz/Mat person connected the draw line on the truck to the dumpster, and the truck pulled it out of the building. The Haz/Mat Team continuously monitored the air inside and outside the building to determine if chlorine levels went above the IDLH (immediately dangerous to life and health). The levels never did go above the IDLH, and soon after the dumpster was removed from the building, employees were allowed to reoccupy the building. The dumpster, once outside the building was opened and deluged with water by the fire department. This stopped the reaction and dissolved the material into the water to form bleach. The dumpster was then emptied, and a clean-up contractor removed ten 7-gallon containers of dry calcium hypochlorite pellets. The material was put into 55-gallon drums, and water was added to it. The resulting mixture was then slowly introduced into the company's wastewater treatment system and, with the approval of the Cranston Sewer Authority, allowed to go into the sewer. The company took full responsibility for the incident.

Ocean State Steel Site, East Providence, RI

On November 10, 2004, DEM responded to the former Ocean State Steel site to inspect the property. While on-site they noticed a damaged Allis Chalmers Transformer that contained approximately 700 gallons of PCB Chlorextol Transformer Oil. The responders indicated that the transformer had to be removed as soon as possible. They hired a contractor to remove the transformer; however, when they went to empty it, they discovered that the contents of the transformer leaked out onto the ground. The transformer was removed and disposed of properly. The surrounding soil was sampled and the analysis indicated that the soil was highly contaminated with PCB oil. The area has been covered and quarantined. The contractor has submitted Removal

Work Plans to the DEM and EPA for review. When the Work Plan has been approved, they would commence cleanup activities.

Snypp, 172 Pascoag Main Street, Burrillville, RI

On November 23, 2004, DEM personnel responded to Route 100 just north of Serio Pizza. They met with the Burrillville Police to investigate a garbage bag containing rabies vaccine, bloody gauze, sharps, and syringes. After donning gloves, they put the material into a plastic container. While conducting the work, some identifying papers were discovered that linked the material to Snypp Clinic on Main Street in Pascoag. The document referred to a rabies clinic sponsored by the RI DEM and the Humane Society of Northeast Rhode Island. The responders then went to the Snypp Clinic to inquire how the bag may have been disposed of on Route 100. The owner indicated the bag was thrown into the dumpster, and someone must have taken it. She explained that it must have been an oversight that some needles were put inside of the bag instead of being disposed with their medical waste. The medical waste was turned over to the DEM Department of Agriculture for proper disposal.

T. Sardelli and Sons, Inc., 195 Dupont Drive, Providence, RI

On November 29, 2004, DEM personnel responded to 195 Dupont Drive for an Anhydrous Ammonia release from a 1,000-gallon exterior tank. The security guard was making rounds at approximately 6:30 AM, when he noticed an ammonia smell by the tank and contacted the Providence Fire Department. The fire department responded and then called the Cranston Haz/Mat Team for assistance. The Cranston Team made an entry to the fenced-in area around the tank and was able to stop the leak. The team then turned off the tank heater to eliminate the pressure on the system. Representatives from Univar were on-scene to provide additional guidance. After the tank was secured the Cranston Haz/Mat Team conducted air monitoring that showed no detectable levels of associated pollutants. Univar estimated that approximately 15 gallons of anhydrous ammonia escaped from the regulator on the tank.

Povar Animal Hospital, 15 First Street, East Providence, RI

On December 14, 2004, DEM personnel responded to Povar Animal Hospital for a spill of chemicals. A lab technician was removing a box from the storage garage when she apparently knocked over a box containing lab chemicals. Some of the material splashed on the woman who was instructed to immediately take a shower and change clothes. The fire department responded and called for assistance from the Providence Haz/Mat Team and DEM. DEM was told that unknown chemicals were spilled and an orange cloud formed. DEM explained that the released material was probable nitric acid, because that material would generate an orange cloud. The owner of the facility indicated that nitric acid was stored in the garage. The fire department transported four employees to the hospital as a precaution. The garage was attached to the building but was segregated from the main building by a fire wall and a separate door. The garage door was open, and no odors or orange fumes could be detected. DEM contacted a clean-up contractor and directed them to begin cleanup as soon as the incident commander gave the go-ahead. Contractor personnel made entry into the garage in Level-A personal protective equipment (PPE) and determined that a one-liter bottle of nitric acid did break open with a few other unidentifiable containers. They concluded that it was safe to enter the garage in Level-C PPE

with a full-face air-purifying respirator. The nitric acid was neutralized with lime and water, and the material was placed into a poly-plastic drum for proper disposal. It was determined during the cleanup that the material in the box that spilled was nitric acid (1 liter), formaldehyde 37% (1 gallon), aluminum acetate (1 pound), mineral oil (1 gallon), propylene glycol (1 gallon), Kaopectate (1 quart), Reticin (1 quart). All the waste was disposed of properly including the contaminated clothing.

Warwick Medical Building, 400 Bald Hill Road, Warwick, RI

On December 21, 2004, DEM personnel responded to the Warwick Medical Building for a mercury release. The incident occurred when a blood pressure instrument broke. It released mercury on the floor, which splashed on the clothes and shoes of individuals in the examination room. The company called in a contractor to clean up the spill and monitor the contaminated area. After the area was cleaned with HGX and a HEPA vacuum, the readings remained too high for the room to be considered clean. The contractor then checked the people in the exam room and found that their shoes and clothes were contaminated. Clothes and shoes were removed and the room was re-cleaned. Then the area was heated using portable heaters, ventilated, and rechecked using a Lumex Mercury Vapor Meter. Then the filters in the heating system were replaced, and the air was again monitored. The readings in the area of the spill were all below the clean-up action level of 1000 Mc/m³, and the breathing area was below 300 ug/m³. As a result, the area was deemed safe for reoccupation. The contractor also checked the house of the person in the examination room who was splashed with mercury and found it to be below the cleanup action level. All items that were contaminated (clothing, air filters etc.) were disposed of properly.

Mercury Collection Area, 300 Smithfield Avenue, Pawtucket, RI

On December 3, 2004 DEM personnel responded to 300 Smithfield Avenue for a spill of mercury on the sidewalk. The spill occurred during a Mercury Thermometer Exchange program that was organized to remove mercury from residential locations. A woman brought in a mercury barometer and, while getting out of her car, spilled an unknown amount of mercury on the sidewalk. The area was immediately roped off from the public, and DEM called in a clean-up contractor. The barometer was taken apart, and the remaining mercury was packed for disposal. The area was cleaned up using a HEPA Vacuum system. The area was then checked with a Lumex Mercury Meter and determined to be remediated.